UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,495	07/11/2003	James Owen	BEAS-01363US0	5399

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/618,495	OWEN ET AL.
	Examiner	Art Unit	
	PAUL KIM	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 October 2006_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-6,49,53,54,56-60,62 and 67-99_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6,49,53,54,56-60,62 and 67-99_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _IDS x 9_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Office action is responsive to the following communication: Amendment filed on 20 October

2006.

2.   Claims 1-6, 49, 53-54, 56-60, 62, and 67-99 are pending and present for examination.

Continued Examination Under 37 CFR 1.114

3.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the

finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on 20 October 2006 has been entered.

Response to Amendment

4.   Claims 1-4, 53-54, 56-58, 60, and 62 have been amended.

5.   Claims 9-14, 17-22, 33-38, 41-46, 50-52, 55, 61, and 63-66 have been cancelled.

6.   Claims 67-99 have been added.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 1, 3-4, 49, 53-54, 57-58, 62, 67, 69-70, 75, 77-78, 84-85, 87-88, 92-93, and**

95-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti et al (U.S. Patent No.

6,970,876, hereinafter referred to as HOTTI), filed on 8 May 2001, and issued on 29 November 2005, in

view of Golshani et al (U.S. Patent No. 5,806,066, hereinafter referred to as GOLSHANI), filed on 26

March 1996, and issued on 8 September 1998.

9.   **As per independent claims 1, 53, 67, 75, 84, and 92** HOTTI, in combination with

GOLSHANI, discloses:

> A method of managing a virtual content repository (VCR) that represents a plurality of
> content repositories {See. HOTTI, col. 1, lines 45-54, wherein this reads over "'Database Catalogue"
> logically partitions a database . . . [wherein] each logical database is a catalogue and contains a complete,
> independent group of database objects. . . . This makes it possible, for example to create two or more
> replica databases into one physical database; and col. 1, lines 54-56, wherein this reads over "'Database
> Node' is a database catalogue, which has been defined to act as a master or replica and thus participates
> in a hierarchy of synchronized databases."}, the method comprising:
>
> > creating a content node for each of the plurality of content repositories and
> > associating each content node with its own content schema {See HOTTI, Figure 9,
> > Elements 921 a, b, and c; and col. 6, lines 52-66, wherein this reads over "[a]s part of the
> > registration, the identification data, e.g. schema name, or the new application data node is sent to
> > the configuration management master database node"}, wherein each of the plurality of
> > content repositories is unique {See HOTTI, col. 6, lines 30-31, wherein this reads over "[t]he
> > configuration management replicas may be full or partial copies};
> >
> > creating a hierarchy of hierarchy nodes in the VCR {See HOTTI, Figure 9; and col. 9, lines 19-
> > 27, wherein this reads over "a hierarchic system where several database systems a, b, c have their
> > respective schema management nodes"}, and for each hierarchy node comprising the
> > substeps of:
> >
> > > indicating a location of the hierarchy node in the hierarchy by an identifier {See
> > > HOTTI, col. 7, lines 18-41, wherein this reads over "two new, empty database nodes are
> > > created to the database server where the application replica database will reside . . . and
> > > registered with the configuration management master . . . . As part of the registration, the
> > > identification data . . . is sent; and col. 9, lines 38-42, wherein this reads over "the invention can
> > > be implemented to work in a telecommunication system, which is compliant with . . . TCP/IP"};
> > >
> > > relating the hierarchy node to a type of content {See HOTTI, col. 2, wherein this reads
> > > over "[a] schema is a representation of the structure of the database that illustrates what kind
> > > of data is stored in the database"};
> > >
> > > associating the hierarchy node with one or more content nodes {See HOTTI, col. 2,
> > > wherein this reads over "[a] schema is a representation of the structure of the database that
> > > illustrates what kind of data is stored in the database"}; and
> > >
> > > associating the hierarchy node with its own hierarchy schema {See HOTTI, Figure 2a,
> > > Elements 233 and 203; col. 6, lines 20-24, wherein this reads over "replicas of the configuration
> > > management master are stored into database server 201, 211, 221 of the database system";
> > > and col. 7, lines 20-26, wherein this reads over, "schema name of the new application database
> > > is sent to the configuration management master database node"};
> >
> > creating a content node for each of the plurality of content repositories {See HOTTI,
> > Figure 9, elements 921 a, b, and c};

storing the hierarchy and content nodes in the VCR {See HOTTI, Figure 2b; and col. 3, lines 28-31, wherein this reads over "[t]here is also a configuration management master 233 stored in the configuration management node, and replicas 203213, 223 of the configuration management master are stored into database servers 201, 211, 221 of the database system"}, <u>resulting in storing each schema in one of the plurality of content repositories</u> {See HOTTI, col. 2, lines 32-34, wherein this reads over "the application replica databases include schemas 113, 123, which may be a full or partial copy of the schema 103 of the application master database"}; and

<u>presenting the plurality of content repositories associated with the VCR as a single content repository to an application program interface</u> {See GOLSHANI, Abstract, wherein this reads over "[t]he schemas of two of the independent database systems are fetched from the subservient computer systems" and "create a virtual database residing in the host computer system satisfying the requirements of the global integrated schema"}.

The combination of inventions disclosed in HOTTI and GOLSHANI would disclose an invention which would comprise of a method wherein a plurality of content repositories may be presented as a single content repository via a virtual content repository (VCR). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by HOTTI by combining it with the invention disclosed by GOLSHANI.

One of ordinary skill in the art would have been motivated to do this modification so that the content schemas and hierarchy schemas may be obtained to create a virtual content repository.

10. **As per dependent claims 3, 57, 69, 77, 87, and 95,** the claims are treated as being optionally recited since the value "can" be a text string, a number, and etc. Therefore, since the requirement for the value being a text string, a number, an image, an audio/visual presentation, and binary data is optional and not necessary to the claimed invention, the claim is rejected.

11. **As per dependent claims 4, 58, 70, 78, 88, and 96** HOTTI, in combination with GOLSHANI, discloses:

The method claim 1 further comprising:

integrating each one of the plurality of content repositories into the VCR by use of one or more of a VCR browser, a content node editor, a schema editor, and a property editor {See HOTTI, col. 7, lines 11-16, wherein this reads over "using the configuring management application"}.

12. **As per independent claim 62, 74, 82-83, 91, and 99**, HOTTI, in combination with GOLSHANI, discloses:

A method (also a computer data signal, a system, and a machine readable medium) of operating on a virtual content repository (VCR) that represents a plurality of content repositories having different types of content, the method comprising:

selecting a node from a hierarchy of both hierarchy nodes and content nodes in the VCR, wherein a location of the node in the hierarchy of nodes is indicated by an identifier, each node is associated with a schema and each content node is associated with one of the plurality of content repositories {See HOTTI, col. 7, lines 18-41, wherein this reads over "two new, empty database nodes are created to the database server where the application replica database will reside . . . and registered with the configuration management master . . . . As part of the registration, the identification data . . . is sent; and col. 9, lines 38-42, wherein this reads over "the invention can be implemented to work in a telecommunication system, which is compliant with . . . TCP/IP"}; and

performing an operation on the node, wherein the operation is one of:

deleting the node;
changing the location of the node in the VCR;
reading the schema associated with the node; and
updating the schema associated with the node {See HOTTI, col. 3, lines 21-25, wherein this reads over "These synchronized schema/application configuration management replicas comprise scripts that are used for creating and/or updating the schemas of the database nodes and managing the configurations of applications that use the database node"}.

13.   **As per dependent claims 54, 85, and 93**, HOTTI, in combination with GOLSHANI, discloses:

The method of claim 53 further comprising:

associating each hierarchy node with its own hierarchy schema {See HOTTI, Figure 2a, Elements 233 and 203; col. 6, lines 20-24, wherein this reads over "replicas of the configuration management master are stored into database server 201, 211, 221 of the database system"; and col. 7, lines 20-26, wherein this reads over, "schema name of the new application database is sent to the configuration management master database node"}; and

associating each content node with its own content schema {See HOTTI, Figure 9, Elements 921 a, b, and c; and col. 6, lines 52-66, wherein this reads over "[a]s part of the registration, the identification data, e.g. schema name, or the new application data node is sent to the configuration management master database node"}.

14.   **Claims 2-3, 5-6, 29-30, 56-57, 59-60, 68-69, 71-72, 75, 77, 79-80, 86-87, 89-90, 94-95, and 97-98** are rejected under 35 U.S.C. 103(a) as being unpatentable over HOTTI, in view of GOLSHANI, and in further view of Wotring et al (U.S. Patent No. 6,665,677, hereinafter referred to as WOTRING), filed on October 2, 2000, and issued on December 16, 2003.

HOTTI teaches the limitations of claims 1, 3-4, 49, 53-54, 57-58, 62, 67, 69-70, 75, 77-78, 84-85, 87-88, 92-93, and 95-96 for the reasons stated above.

HOTTI differs from the claimed invention in that HOTTI fails to teach a method (also a computer data signal, a system, and a machine readable medium) wherein the first and second schemas comprise one or more properties, wherein each property is an association between a name and at least one value (claims 2, 56, 68, 76, 86, and 94).

HOTTI differs from the claimed invention in that HOTTI fails to teach a method (also a computer data signal, a system, and a machine readable medium) wherein the value can be a text string, a number, an image, an audio/visual presentation, or binary data (claims 3, 57, 69, 77, 87, and 95).

HOTTI differs from the claimed invention in that HOTTI fails to teach a method (also a computer data signal, a system, and a machine readable medium) wherein the schema includes at least one property definition (claims 5, 59, 71, 79, 89, and 97).

HOTTI differs from the claimed invention in that HOTTI fails to teach a method (also a computer data signal, a system, and a machine readable medium) wherein a property definition can specify, for a property, property choices (claims 6, 60, 72, 80, 90, and 98).

15.   **As per dependent claims 2, 56, 68, 76, 86, and 94,** HOTTI, in combination with GOLSHANI and WOTRING, discloses a method (also a computer data signal, a system, and a machine readable medium) wherein the first and second schemas comprise one or more properties, wherein each property is an association between a name and at least one value {See WOTRING, Figure 3; and col. 4, lines 27-30, wherein this reads over "[t]he schema defines the logical categories in which data can be stored"}.

The combination of inventions disclosed in HOTTI and WOTRING would disclose an invention which would comprise of a method (also a computer data signal, a system, and a machine readable medium) wherein the schema comprise properties which are associations between a name and a value. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by HOTTI by combining it with the invention disclosed by WOTRING.

One of ordinary skill in the art would have been motivated to do this modification since a schema is a description for how data is stored in a database, thus, necessitating the association of names and values.

16.   **As per dependent claims 3, 57, 69, 77, 87, and 95,** HOTTI, in combination with GOLSHANI and WOTRING, discloses a method (also a computer data signal, a system, and a machine readable medium) wherein the value can be a text string, a number, an image, an audio/visual presentation, or binary data {See WOTRING, Figure 3; and col. 4, lines 27-30, wherein this reads over "[t]he schema defines the logical categories in which data can be stored"}.

The combination of inventions disclosed in HOTTI and WOTRING would disclose an invention which would comprise of a method (also a computer data signal, a system, and a machine readable medium) wherein the value can be a text string, a number, an image, an audio/visual presentation, or binary data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by HOTTI by combining it with the invention disclosed by WOTRING.

One of ordinary skill in the art would have been motivated to do this modification since a schema is a description for how data is stored in a database, thus, necessitating that the stored value be in the format of a text string, a number, an image, an audio/visual presentation, or binary data.

17.   **As per dependent claims 5, 59, 71, 79, 89, and 97,** HOTTI, in combination with GOLSHANI and WOTRING, discloses a method (also a computer data signal, a system, and a machine readable medium) wherein the schema includes at least one property definition {See WOTRING, Figure 3; and col. 4, lines 27-30, wherein this reads over "[t]he schema defines the logical categories in which data can be stored"}.

The combination of inventions disclosed in HOTTI and WOTRING would disclose an invention which would comprise of a method (also a computer data signal, a system, and a machine readable medium) wherein the schema includes at least one property definition, specifically logical categories into which data may be classified. Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the above invention suggested by HOTTI by combining it with the invention disclosed by WOTRING.

One of ordinary skill in the art would have been motivated to do this modification since a schema is a description for how data is stored in a database, thus, necessitating that certain properties be defined.

18.   **As per dependent claims 6, 60, 72, 80, 90, and 98,** HOTTI, in combination with GOLSHANI and WOTRING, discloses a method (also a computer data signal, a system, and a machine readable medium) where a property definition can specify property choices {See WOTRING, Figure 3; and col. 4, lines 27-30, wherein this reads over "[t]he schema defines . . . the attributes that belong to the individual logical categories"}.

The combination of inventions disclosed in HOTTI and WOTRING would disclose an invention which would comprise of a method (also a computer data signal, a system, and a machine readable medium) wherein the property definition can specify certain property choices, or attributes belonging to individual logical categories. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by HOTTI by combining it with the invention disclosed by WOTRING.

One of ordinary skill in the art would have been motivated to do this modification since a schema is a description for how data is stored in a database, thus, necessitating that certain property definitions be specified in further detail by property choices.

19.   **Claims 49, 73, and 81** are rejected under 35 U.S.C. 103(a) as being unpatentable over HOTTI, in view of GOLSHANI, and in further view of Wotring et al (U.S. Patent No. 6,853,997, hereinafter referred to as WOTRING '997), filed on 28 June 2001, and issued on 8 February 2005

HOTTI teaches the limitations of claims 1, 3-4, 49, 53-54, 57-58, 62, 67, 69-70, 75, 77-78, 84-85, 87-88, 92-93, and 95-96 for the reasons stated above.

HOTTI differs from the claimed invention in that HOTTI fails to teach a method (also a computer data signal, a system, and a machine readable medium) wherein the identifier is a path (claims 49, 73, and 81).

20.   **As per dependent claims 49, 73, and 81**, HOTTI, in combination with GOLSHANI and

WOTRING '997, discloses a method wherein the identifier is a path {See WOTRING '997, Figures 1 and 2}.

The combination of inventions disclosed in HOTTI and WOTRING '997 would disclose an

invention which would comprise of a method wherein the identifier is a path indicating the location of the

hierarchy node in the hierarchy (e.g. "Entity Path = '\Person\Physical Descripton'"}. Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

above invention suggested by HOTTI by combining it with the invention disclosed by WOTRING '997.

One of ordinary skill in the art would have been motivated to do this modification so that the

application may determine the location of each hierarchy node in the hierarchy.

Response to Arguments

21.   Applicant's arguments with respect to rejections under 35 U.S.C. 102(e) have been considered

but are moot in view of the new ground(s) of rejection.

Conclusion

22.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to PAUL KIM whose telephone number is (571)272-2737. The examiner can normally be

reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu

Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

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866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or

access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Apu M Mofiz/   Paul Kim
Supervisory Patent Examiner, Art Unit 2161   Examiner, Art Unit 2161
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/pk/